

**ABSTRACT**

Apparatus for driving current in a power circuit of a medical device inserted into a body of a subject includes a power transmitter, which is adapted to generate, in a vicinity of the body, an electromagnetic field having a predetermined frequency capable of inductively driving the current in the power circuit. A passive energy transfer amplifier, having a resonant response at the frequency of the electromagnetic field is placed in proximity to the medical device so as to enhance the current driven in the power circuit by the electromagnetic field.